

REMARKS/ARGUMENTS

Reconsideration of this application is requested. Claims 13-23 and 38 are in the case.

I. THE OBVIOUSNESS REJECTIONS

Claims 13-21, 23 and 38-40 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent 5,225,129 to van den Berg in view of U.S. Patent 5593,778 to Kondo et al. Claim 22 stands rejected under 35 U.S.C. §103(a) as allegedly unpatentable over van den Berg in view of Kondo et al and further in view of U.S. Patent 4,655,777 to Dunn et al. Those rejections are respectfully traversed.

The invention as claimed is directed to a process for producing a biodegradable fibre-reinforced shaped composite. The process comprises providing a shaped preform of reinforcing fibres in a mold or tool, introducing into the tool or mould containing the preform a composition comprising oligomers, and partially or substantially polymerising the composition to form a polymer in the mold or tool. The concept of forming a polymer in a tool or mold containing a shaped preform of reinforcing fibres by partially or substantially polymerising a composition comprising oligomers is not suggested by the cited prior art.

van den Berg describes an injection molding approach in which monomers and catalysts are injected into a mold, and the monomers are polymerized *in situ* (see the Abstract in column 1, lines 55-65). In contrast, in the process as claimed, the composition introduced into the tool or mold containing the preform comprises oligomers. van den Berg does not disclose or suggest the use of oligomers in this process.

Kondo does mention the use of oligomers at column 26 lines 51 to 54, but this is in the context of a step carried out at the end of the process. In that end step, the crystallinity of an already formed polymer can be reduced by mixing with an oligomer. The presently claimed invention, on the other hand, uses oligomers as a starting material. These oligomers are polymerised during the process and so are not present in the final polymer. Kondo therefore leads the person of ordinary skill away from the present invention by suggesting incorporating oligomers into the final polymer by mixing, resulting in those oligomers actually being present in the end product.

If one of ordinary skill were to combine Kondo with van den Berg (it is believed that such a combination would not have been contemplated by one of ordinary skill), this would not have lead the skilled artisan to the presently claimed process, which involves introducing into the mold or tool containing the preform a composition comprising oligomers and then partially or substantially polymerising this oligomer composition to form a polymer in the mold or tool. In fact, Kondo leads away from this by suggesting that oligomers must be added after polymerisation and must be present in the end product, to reduce crystallinity. Additionally, one of ordinary skill would not have been motivated to combine van den Berg and Kondo, as the skilled artisan would not have considered it obvious to blend the biodegradable polymer formed in van den Berg with other components once it had been formed, as this would be expected to at least heavily disrupt and damage the fibres and their orientation. Accordingly, the person of ordinary skill would not have been motivated to apply Kondo, which suggests that crystallinity can be controlled by blending the final polymer with oligomers, to the biodegradable polymer produced in accordance with van den Berg. Absent any such

motivation, it is clear that van den Berg and Kondo do not give rise to a *prima facie* case of obviousness. Withdrawal of the obviousness rejection based on van den Berg and Kondo is accordingly respectfully requested.

With regard to the rejection of claim 22, that claim is dependent on claim 13 and incorporates all of the features of claim 13 which are patentable over van den Berg and Kondo for the above-discussed reasons. One of ordinary skill would not have been motivated to arrive at the subject matter of claim 22 based on the combined disclosures of van den Berg, Kondo and Dunn et al. Absent any such motivation, it is clear that a *prima facie* case of obviousness has not been generated in this case. Withdrawal of the outstanding obviousness rejection over the combined disclosures of van den Berg, Kondo and Dunn are accordingly respectfully requested.

II. IDS and RCE

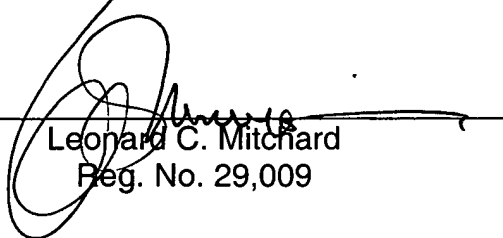
An IDS accompanies the present response. An RCE is also presented to secure entry of the IDS and the present Amendment

Favorable action on this application is awaited.

Respectfully submitted,

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Attachments: RCE; IDS, listed references